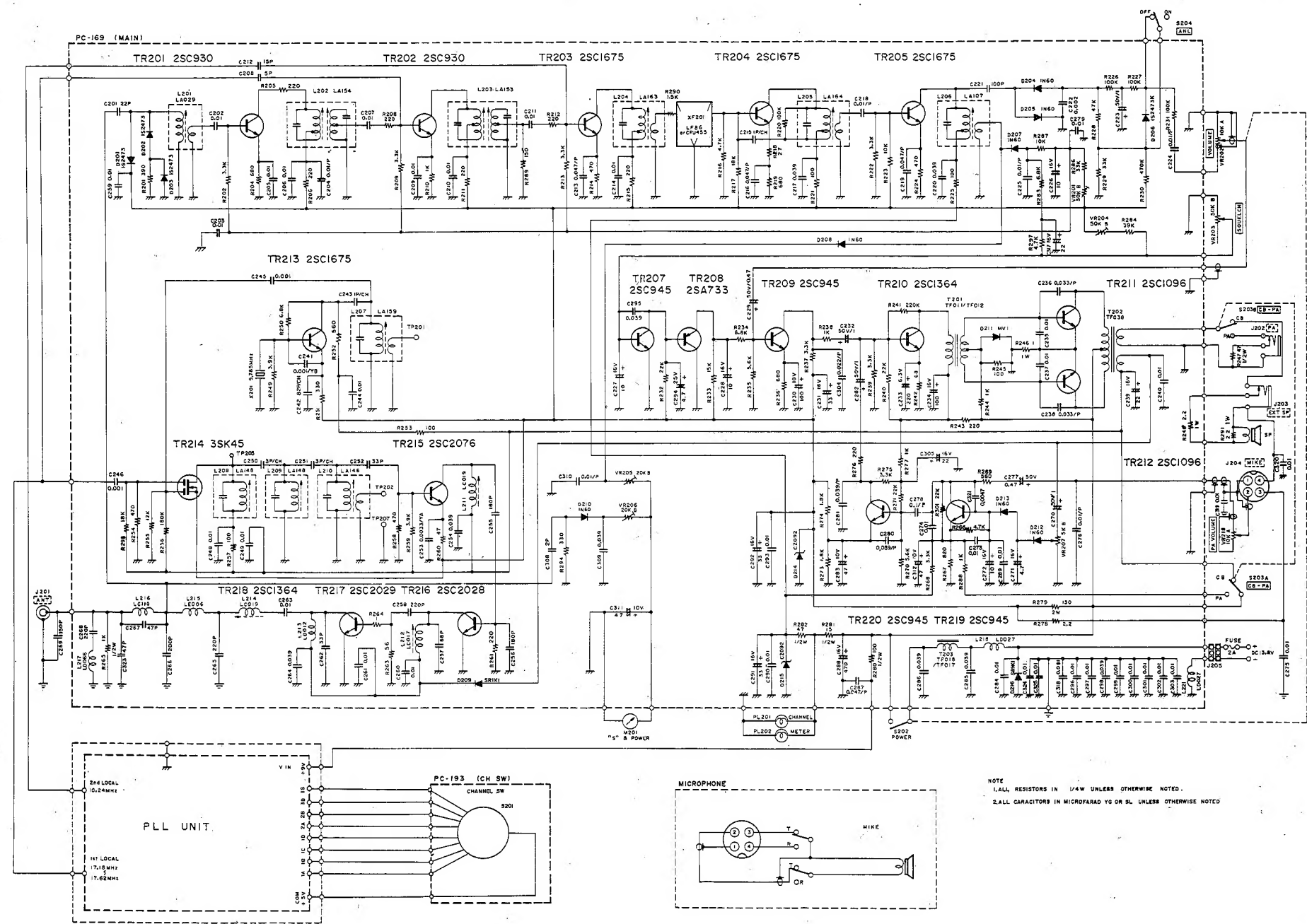
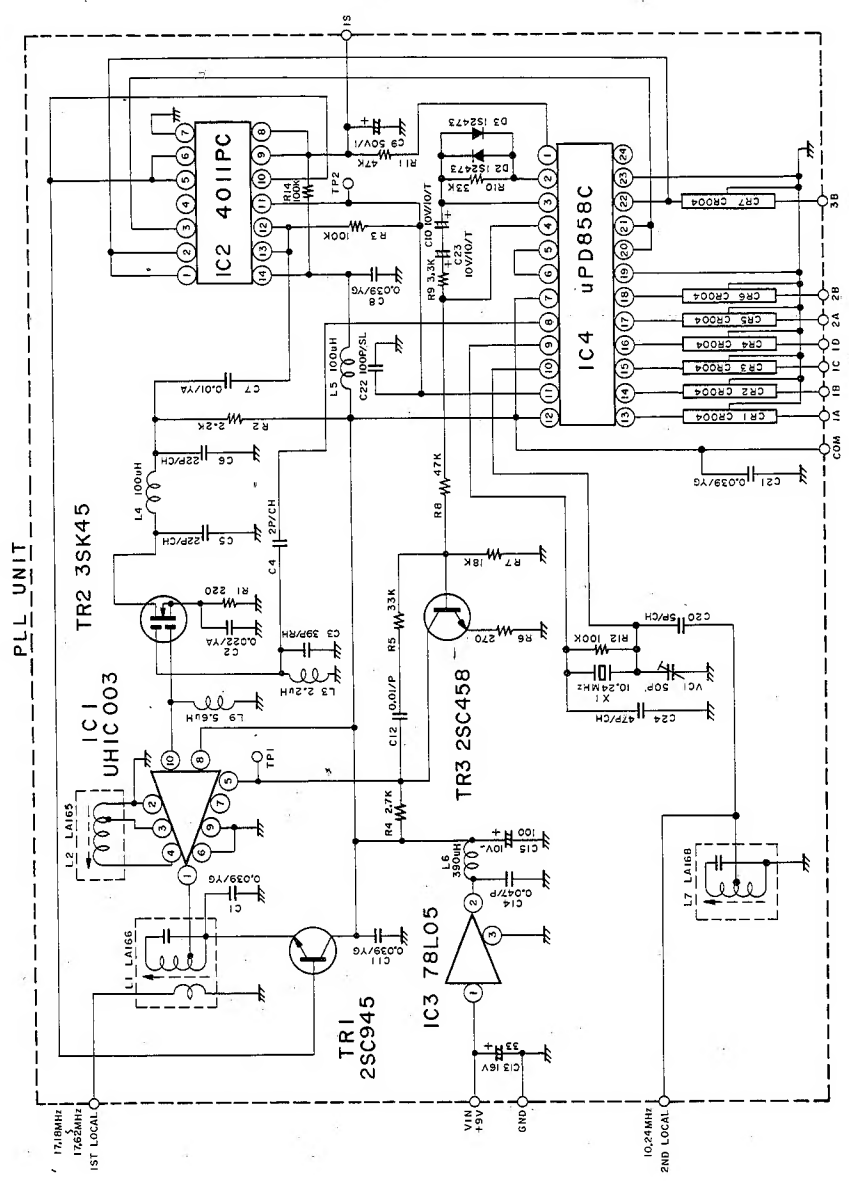


MAIN CIRCUIT DIAGRAM FOR COBRA 77X



PLL UNIT CIRCUIT DIAGRAM FOR COBRA 77X



BILL OF MATERIAL FOR COBRA 77X

CIRCUIT SYMBOL	DESCRIPTION	PART NO.	CIRCUIT SYMBOL	DESCRIPTION	PART NO.	
TRANSISTORS, FET, IC, & DIODES						
TR-208	Transistor 2SA73-C	177-018-9-001	VR-206	Semi-fixed Resistor RV-103 50K-B	008-209-9-010	
TR-3	Transistor 2SC458-C	176-048-9-002	VR-207	Semi-fixed Resistor RV-103 50K-B	008-209-9-008	
TR-201,202	Transistor 2SC3930-D	176-060-9-003	VR-208	Variable Resistor RV-055 10K-A	008-284-9-001	
TR-207,209,219,220	Transistor 2SC1086-4ZL	172-038-9-003	VR-202	Variable Resistor RV-027 10K-A	008-187-9-002	
TR-211,212	Transistor 2SC1384-6	176-054-9-001	VR-203	Variable Resistor RV-071 50K-B	008-227-9-003	
TR-210	Transistor 2SC1675-M	176-060-9-002	RESISTORS			
TR-203,204,206,213	Transistor 2SC2028-B/20	172-038-9-001	R-246	Metallized Resistor 1 ohm 1W	013-002-9-002	
TR-216	Transistor 2SC2028-B/10	172-038-9-002	R-248	Metallized Resistor 2.2 ohm 1W	013-011-9-001	
TR-217	Transistor 2SC2079-B/10	176-060-9-004	R-291	Metallized Resistor 150 ohm 1W	013-011-9-003	
TR-215	Transistor 2SC2076-CB		R-279	Metallized Resistor 150 ohm 1W	013-011-9-003	
R-214,2	FET 3SK45-B	182-038-9-001	R-281	Car Comp. Resistor 15 ohm 1/2W	001-102-5-150	
IC-1	Integrated Circuit UHIC-003	307-108-9-001	R-282,247	Car Comp. Resistor 100 ohm 1/2W	001-102-5-101	
IC-2	Integrated Circuit 4011-PC	307-095-9-002	R-280	Car Comp. Resistor 100 ohm 1/2W	001-102-5-101	
IC-3	Integrated Circuit 78L05-AV	307-095-9-003	R-285	Car Comp. Resistor 47K ohm 1/2W	001-102-5-102	
IC-4	Integrated Circuit UPD858C	307-095-9-004	R-287	Carbon Film Resistor 47K ohm 1/4W	002-104-5-472	
D-204,205,207,208,	Diode	150-014-9-001	R-283	Carbon Film Resistor 6.8K ohm 1/4W	002-104-5-682	
D-201,212,213	Diode	151-059-9-001	R-282	Carbon Film Resistor 10K ohm 1/4W	002-104-5-103	
D-201,202,203	Diode (Forming)	151-080-9-001	R-204	Carbon Film Resistor 22K ohm 1/4W	002-104-5-228	
D-208,216	Diode SR1K-1	151-040-9-003	R-205	Carbon Film Resistor 1 ohm 1/4W	002-104-5-104	
D-214,215	Zener Diode	152-051-9-001	R-206	Carbon Film Resistor 2.2 ohm 1/4W	002-104-5-270	
D-211	Varistor	151-049-9-002	R-207	Carbon Film Resistor 22 ohm 1/4W	002-104-5-271	
COILS & TRANSFORMERS						
L-201	Coil LA-029	066-017-9-001	R-201	Carbon Film Resistor 330 ohm 1/4W	002-104-5-331	
L-206	Coil LA-107	060-022-9-003	R-204	Carbon Film Resistor 390 ohm 1/4W	002-104-5-391	
L-210	Coil LA-146	060-022-9-002	R-214,224,254,258	Carbon Film Resistor 470 ohm 1/4W	002-104-5-471	
L-208,209	Coil LA-148	060-017-9-001	R-204,219,236	Carbon Film Resistor 680 ohm 1/4W	002-104-5-681	
L-203	Coil LA-153	066-025-9-002	R-287	Carbon Film Resistor 820 ohm 1/4W	002-104-5-821	
L-202	Coil LA-154	066-025-9-001	R-277,210,236,244,288	Carbon Film Resistor 1K ohm 1/4W	002-104-5-102	
L-204	Coil LA-155	066-025-9-003	R-280	Carbon Film Resistor 1.5K ohm 1/4W	002-104-5-152	
L-205	Coil LA-156	066-022-9-001	R-273,274	Carbon Film Resistor 1.8K ohm 1/4W	002-104-5-182	
L-2	Coil LA-166	066-025-9-005	R-2	Carbon Film Resistor 2.2K ohm 1/4W	002-104-5-222	
L-1	Coil LA-165	044-046-9-001	R-9,202,213,222,239	Carbon Film Resistor 2.7K ohm 1/4W	002-104-5-332	
L-2	Coil LA-168	044-039-9-002	R-249,259	Carbon Film Resistor 3.9K ohm 1/4W	002-104-5-392	
L-212	Coil LC-017	044-028-9-004	R-216,266	Carbon Film Resistor 4.7K ohm 1/4W	002-104-5-472	
L-211,214	Coil LC-019	044-028-9-002	R-235,270	Carbon Film Resistor 5.6K ohm 1/4W	002-104-5-562	
L-216	Coil LC-010	041-078-9-001	R-250,234	Carbon Film Resistor 6.8K ohm 1/4W	002-104-5-682	
L-213	Coil LC-011	042-028-9-003	CAPACITORS			
L-218,221	Coil LD-012	042-011-9-001	C-300,301,302,303,279,259,	C-300,301,302,303,279,259,	020-180-9-024	
L-217	Coil LD-027	042-011-9-001	275,319	C-217,220,254,264,1.8,		
L-215	Coil LE-006	044-028-9-001	275,319	C-217,293,285,286,309,		
L-3	Micro Inductor	041-056-9-002	275,319	C-241	Ceramic Capacitor 0.003uF 50V YB	020-180-9-025
L-4,5	Micro Inductor	041-078-9-002	275,319	C-283	Ceramic Capacitor 0.01uF 50V YA	020-180-9-027
L-6	Micro Inductor	041-078-9-003	275,319	C-2	Ceramic Capacitor 0.022uF 50V YA	020-180-9-028
L-9	Micro Inductor	041-078-9-004	275,319	C-3	Ceramic Capacitor 39pF 50V	020-180-9-029

CIRCUIT SYMBOL	DESCRIPTION	PART NO.	CIRCUIT SYMBOL	DESCRIPTION	PART NO.
RESISTORS (Continued)					
R-223	Carbon Film Resistor	10K ohm	1/W	J	002-104-5-103
R-255	Carbon Film Resistor	12K ohm	1/W	J	002-104-5-123
R-233	Carbon Film Resistor	15K ohm	1/W	J	002-104-5-153
R-7,217,293	Carbon Film Resistor	18K ohm	1/W	J	002-104-5-183
R-301,240,271	Carbon Film Resistor	22K ohm	1/W	J	002-104-5-223
R-284	Carbon Film Resistor	39K ohm	1/W	J	002-104-5-393
R-286,229,5,10	Carbon Film Resistor	33K ohm	1/W	J	002-104-5-333
R-228,8,11	Carbon Film Resistor	47K ohm	1/W	J	002-104-5-473
R-3,12,14,220,226,227,231	Carbon Film Resistor	100K ohm	1/W	J	002-104-5-104
R-256	Carbon Film Resistor	180K ohm	1/W	J	002-104-5-184
R-241	Carbon Film Resistor	220K ohm	1/W	J	002-104-5-224
R-230	Carbon Film Resistor	470K ohm	1/W	J	002-104-5-474
CAPACITORS					
C-229,277	Capacitor, Electrolytic	0.47uF	50V		022-157-9-001
C-223,232,282,270	Capacitor, Electrolytic	1uF	50V		022-157-9-002
C-271,294	Capacitor, Electrolytic	4.7uF	25V		022-157-9-003
C-226,227,228,272	Capacitor, Electrolytic	10uF	16V		022-157-9-004
C-238,305,317	Capacitor, Electrolytic	22uF	16V		022-157-9-005
C-231,291,292,13	Capacitor, Electrolytic	33uF	16V		022-157-9-006
C-283,311,312	Capacitor, Electrolytic	47uF	10V		022-157-9-007
C-230,15	Capacitor, Electrolytic	100uF	10V		022-157-9-008
C-234	Capacitor, Electrolytic	100uF	16V		022-157-9-009
C-233	Capacitor, Electrolytic	220uF	63V		022-157-9-010
C-288	Capacitor, Electrolytic	470uF	18V		022-157-9-011
C-10,23	Tantalum Capacitor	10uF	10V		027-025-9-001
C-15,243	Ceramic Capacitor	1uF	50V C CH		020-180-9-002
C-250,251	Ceramic Capacitor	2uF	50V C CH		020-180-9-003
C-20	Ceramic Capacitor	3uF	50V C CH		020-180-9-004
C-5,6	Ceramic Capacitor	5uF	50V K CH		020-180-9-005
C-24	Ceramic Capacitor	22uF	50V K CH		020-180-9-006
C-308	Ceramic Capacitor	47uF	50V K CH		020-180-9-007
C-202	Ceramic Capacitor	82uF	50V K CH		020-180-9-008
C-201	Ceramic Capacitor	2uF	50V C SL		020-180-9-009
C-252,262	Ceramic Capacitor	5uF	50V C SL		020-180-9-010
C-263,323	Ceramic Capacitor	22uF	50V K SL		020-180-9-011
C-269	Ceramic Capacitor	33uF	50V K SL		020-180-9-012
C-257	Ceramic Capacitor	47uF	50V K SL		020-180-9-013
C-22,221	Ceramic Capacitor	150uF	50V K SL		020-180-9-014
C-2,66	Ceramic Capacitor	68uF	50V K SL		020-180-9-015
C-255,256,268	Ceramic Capacitor	100uF	50V K SL		020-180-9-016
C-245,246,318	Ceramic Capacitor	200uF	50V K SL		020-180-9-017
C-222	Ceramic Capacitor	180uF	50V K SL		020-180-9-018
C-321	Ceramic Capacitor	220uF	50V K SL		020-180-9-019
C-320,324,325,202,261,263,273,274,284,289,290,293,296,297,299,203,205,206,207,209,210,211,214,235,237,240,244,246,248,249,250,	Ceramic Capacitor	0.00022uF	25V YG		020-180-9-020
		0.0047uF	25V YG		020-180-9-021
		0.01uF	25V Z YG		020-180-9-022
CAPACITORS (Continued)					
C-300,301,302,303,279,259,275,319	Ceramic Capacitor	0.03uF	25V Z YG		020-180-9-024
C-217,293,285,286,309,298	Ceramic Capacitor	0.003uF	50V YB		020-180-9-025
C-241	Ceramic Capacitor	0.0003uF	50V YB		020-180-9-026
C-283	Ceramic Capacitor	0.01uF	50V YA		020-180-9-027
C-2	Ceramic Capacitor	0.022uF	50V YA		020-180-9-028
C-3	Ceramic Capacitor	39pF	50V		020-180-9-029
C-278	Mylar Capacitor	0.1uF	50V K		025-121-9-001
C-12,224,204,218,225,276,310	Mylar Capacitor	0.01uF	50V K		025-121-9-002
C-304	Mylar Capacitor	0.022uF	50V K		025-121-9-003
C-236,238	Mylar Capacitor	0.03uF	50V K		025-121-9-004
C-280,281	Mylar Capacitor	0.04uF	50V K		025-121-9-005
C-213,216,219,287,14	Mylar Capacitor	0.04uF	50V K		025-121-9-006
VC-1, CR-1,2,3,4,5,6,7	Trimmer Condenser Composite Parts	50pF	CV-024		028-036-9-001
		HA-002	CR-004		523-102-9-001
CRYSTALS					
CX-070	Crystal	9.785MHz			132-028-9-001
OX-074	Crystal	10.24MHz			132-027-9-001
MISCELLANEOUS					
Granic Filter	FL-019	LF-86			140-015-9-001
Rotary Switch	SW-034				083-224-9-001
Slide Switch	SW-051				084-051-9-001
Spacer	SR-003				580-013-9-001
Microphone	MI-042				520-015-9-001
Jack (Phonograph)	JK-025				773-027-9-001
Jack (Fitter)	JK-075				773-027-9-002
Jack (Metecon)	JK-028				773-027-9-003
Plug	PG-016				757-038-9-001
Check Terminal	TP-207				757-028-9-001
Check Terminal	TP-203,201,202				345-041-9-001
Pilot Lamp (Red)	PL-202				400-035-9-004
Pilot Lamp	PL-201				400-046-9-001
Fuse	FS-001	2A			191-251-9-002
Wire Clamp	WY-047				380-278-9-001
Insulator	YD-003				347-073-9-001
Connector Pin	TP-026				757-035-9-001
Chassis Case (Upper)	SPCC				257-093-9-001
Case (Lower)	SPCC				272-112-9-001
Bracket	SPCC				272-113-9-001
Heat sink					551-187-9-001
					747-044-9-001

536-077-0-000

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